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FUTURE STATES

F O R U M

**CROSSED SIGNALS: Rewiring Your Organization Before
Investing in New Technology**

**February 20, 2014
Dinner Discussion Highlights**



We brought together a dynamic, diverse group of leaders to discuss the **future of technology** and how it will **change the way we operate** to become more agile organizations.

It is no surprise that accelerating and disruptive technological developments are forcing established organizations to dramatically alter business and operating models to grow and, in some cases, remain relevant in the marketplace. The challenge is not discovering the next technological trend, but rewiring a company to be able to adopt new technology, products and capabilities. To keep pace with the exponential rate of technological change, organizations seek to "innovate", but innovation that drives success requires agility in leadership, strategies, organizational structures, relationships, and processes—rewiring an organization to be so is not for the timid.

Successful companies can no longer expect to align technology to capability offerings; rather, they must flip the model and align their capabilities to rapidly changing technologies. To do so, business leaders must challenge inherent assumptions of their business models, even as these models currently support success in the present competitive environment.

Technological innovation is no longer about the equipment or infrastructure; rather, organizations must anticipate the needs and expectations of their customers and understand how the technology will impact their experience. Understanding the end-user's and consumer's desired experiences is a key component in creating long term business strategies which help to identify technologies that are best suited to organizations' specific industries. This deliberate planning effort will enable companies to adapt quicker to seize opportunities and FutureProofSM themselves against ever constant market changes and shifts.

On February 20, 2014, Toffler Associates and The Space Foundation jointly hosted a dinner with executive leaders from eighteen innovative, best-in-class organizations to discuss the future of technology; how best to harness relevant technological advances; and how organizations can increase agility to drive success. Participants focused on three questions:

- How can organizations adapt operating models (strategy, structure, processes, workforce, technology capabilities, and partnerships) to increase agility and drive success in new and shifting markets?
- How will the blending of technologies, such as data analytics, social connectivity, cloud computing, autonomous technology, and instantaneous communication, alter current business models?

- What technologies will dramatically change the face of the market place? What investments should organizations make now to prepare for these innovations?

Organizations must understand how and when emerging technology will impact their markets

Success in an interconnected and increasingly complex global economy requires organizations to broaden their scope and identify the underlying drivers that will shape their markets. This means that companies in the space industry, for example, must look not only at traditional “space” technologies, but also how shifting economic and social factors will change. It was stated during the dinner that “there is a transition occurring in the space industry today that is allowing commercial companies to do some amazing things because of the advances of new technology.” This is causing barriers to come down in the space market and the entrance of new services and applications.

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Space has traditionally been focused on information for various markets (e.g., environmental research, military intelligence, and traditional research) but decreasing launch costs, coupled with increasing global competition, supported growing wealth class and those new technologies has driven the market for space travel. While still a nascent sector of the market, the space industry must understand how social and economic drivers are changing the face of the industry, just as shipping companies in 18th and 19th century had to recognize the changing face of their industry.

Because there are so many factors that can impact markets and since the technology landscape is changing so rapidly, organizations must look at multiple drivers to help them understand the impact to the market as a whole. There is a shift of power along value chains towards the end user. This democratization of choice is present across all technology markets and creating a new way to do business. This value shift and the end customer’s access to more data has made the future more complex; therefore, linear planning based on a single set of assumptions can lead to poor decisions and inefficient allocation of resources. By developing “alternate futures,” analyzing the implications of decisions in each future, and using the implications as inputs to strategy, organizations can improve their *plans* and ensure that they have are agile enough to quickly *adapt* to changing markets.

Organizations must plan to embrace behaviors and operating models that foster innovation – the must define the actions needed to move forward

Once companies have a strong understanding of the future drivers and implications, it is important to start *planning* to meet those future challenges and opportunities. As companies consider their plans, they must remember, however, that planning is more than just developing strategies. To be sure, meeting the challenges of changing markets will require new strategies, but new strategies will require new business models; new business models will require new talents and behaviors across the workforce. It will

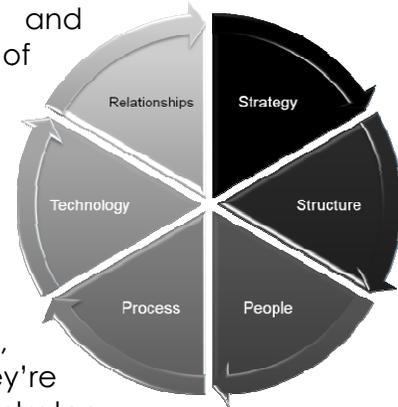
“Companies need to be thinking outside of any known parameters and embrace a paradigm shift.”

take new organizational culture. Additionally, as one participant added, “Companies need to be thinking outside of any known parameters and embrace a paradigm shift.”

Innovation is chaotic, messy, and uncertain and it takes radically different tools to measure and control this effort. Companies need new policies, processes, and procedures, to continuously innovate in a rapidly changing competitive

environment. They need new business relationships, incentives and organizational structures to engage their workforce in the process of strategic decision making and innovation.

For the adaptive enterprise, the goal is not to become healthy by making a specific change from “state A” to “state B” — in large part because “state B” will soon be out of synch itself as the environment continues to change. The A-to-B approach will never work. Instead, the adaptive organization understands and embraces that the world is constantly changing, understands the nature of those changes, embraces methods of adapting to where things are and where they’re headed, and possesses the boldness to adapt people, process, strategy, technology, structure and business relationships as continuously needed.



Planning to Develop Future-Focused Strategies

For organizations to institutionalize innovative and agile operational models, strategy development and planning must outpace the accelerating rate of change in the marketplace. Strategies should not be viewed as “published” documents that are only occasionally updated, altered, or changed. Innovative organizations and leaders view their strategies as living, adaptive guidance that they must continuously improve and test based on the constantly shifting environment. In addition, organizations should abandon traditional C-level strategic planning efforts and strive to include different perspectives in the development process. As we look for ways to grow, we are faced with a conundrum. Every policy, process, and procedure that makes our organizations effective execution machines has the potential to stifle innovation and puts at risk our ability make strategic decisions. As we spoke about during the dinner, leaders must embrace this unnatural thought of changing what has made them successful in the past to help them shape their industries in the future. These policies and processes can

and should be adapted to the new environment as leaders of organizations better understand and serve their future customers' demands, as well as today's customers.

Planning to Attract and Retain Future-Focused People

Across many industries, innovation and decision support cycles are sometimes out of synch with market demands and consumer needs. One dinner participant commented, "Attracting new talent in the industry will ensure innovation continues in this market for the foreseeable future." To remain agile while continuously innovating requires organizations to not only increase agility in their strategy, but also identify and foster those behaviors that will drive innovation and change and create the structure to support them. It is not enough to have a great strategy – organizations must have people and operating models that can execute.

The competition for talent is fiercer than ever before, and during the dinner, we discussed the following issues:

- Developing a narrative within the space industry to build more excitement and attract more energetic talent
- Breaking down some of the processes and bureaucratic policies that may deter people from working at companies in the space industry
- Having an importance of passion and vision and how people invest in passion and ideas, regardless of the industry; then the money and talent usually follow

Organizations must adapt to technology that will change the future marketplace

Rapidly changing technology helps to bring the cost down to many markets, such as space, that were traditionally served by a few large firms. These advancements made the space market available to a growing number of smaller, more innovative, and agile organizations that serve very different service segments. These companies can introduce new products and capabilities more quickly, driving changes in consumer needs and expectations. Organizations will need to *adapt* to these changes—internally and externally—to shape markets and drive success. As one dinner participant said, "Business model and the dynamics in the space industry have changed as it is cheaper to make things these days on a smaller scale and with a lighter team—making it easier for smaller companies to operate at a much larger scale than in the past."

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These new smaller companies have an inherent luxury, as they have not been burdened with some of the necessary internal processes that have a secondary effect of discouraging risky endeavors. The ability to take risks, fail quickly, and to learn from failure, is one of the most important attributes for truly innovative organizations. One

participant summarized, “The tolerance for risk shifts dramatically as companies grow and companies need to make sure that it is okay to fail.” Leaders of innovative organizations must be courageous enough to not punish new ideas that don’t fall in the normal glide path of their standard business operations. Focusing on proper behaviors, longer-term opportunities, and enhanced strategic thinking will facilitate and reinforce continuous improvements to business operations at-large. This includes realizing when personal bias has clouded what should be an obvious decision to end a program before it has lasting negative effects on the organization. Strong organizations continuously evaluate their leadership development processes, as well as their recruiting and retention strategies to ensure the proper behaviors are being rewarded.

There is an inherent value placed on people’s passion and how they invest in those passions and ideas, regardless of the industry. This narrative is critical when describing benefits of technology and services: people invest their money, time, and other resources in what they are passionate about. Space has the benefit of always eliciting strong emotions, providing a unique advantage for this industry.

Leaders need challenge their own biases, as well as those across the organization, to ensure they embrace accelerating technological shifts ahead of competitors and drive success.

Conclusion

Across industries, disruptive technologies continue to force radical changes at an accelerating pace. These developments and advancements require organizations—both large and small—to adapt more quickly than ever before.

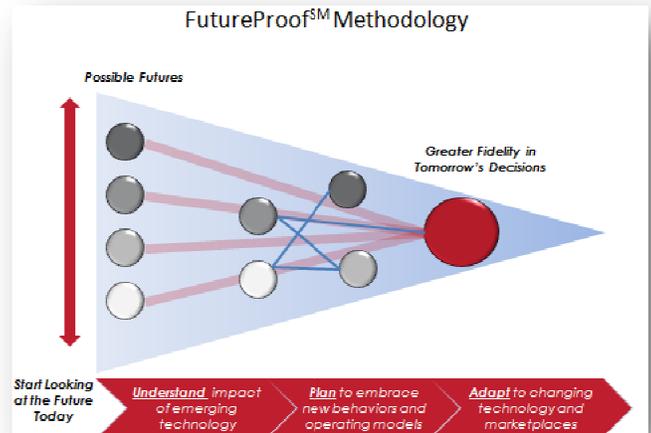
Technology is no longer a support function; rather, it is an enabler that drives innovation, adaptability, and agility according to market and customer needs. Industry leaders of today and tomorrow will be required to not only understand and plan for drastic changes to their business models and strategies, but also how to institutionalize and manage continuous changes while driving bottom-line growth.

Companies must therefore be proactive in such a way that helps to drive market and consumer needs, rather than simply reacting to shifting dynamics. Success will hinge on a culture that not only accepts, but embraces change and institutionalizes those behaviors that enable agility, and not on benchmarking past achievements and chasing technology trends.

TOFFLER ASSOCIATES

Toffler Associates is a strategy and organizational change consultancy, helping leaders build the extraordinary organizations of tomorrow. We serve as a catalyst for change for clients with tough problems to solve, creating impact through knowledge of the forces of change that will shape the future.

To accomplish this, we employ a collaborative approach to guide clients in the development of Knowledge Age business strategies. Our **FutureProofSM** business consulting service provides clarity by identifying the risks and opportunities that may lie ahead, enabling leaders to implement the changes necessary to create value, to sustain growth and to succeed in future operating environments.



We work with public-sector clients, such as federal agencies, the intelligence community, associations and educational institutions, to develop and implement ways to use resources more effectively and to build lasting public trust. We work with private-sector clients, like those in the transportation, aerospace, chemical, advanced materials, information technology and defense markets, to create and execute strategies that drive top-line growth.

We find daily inspiration in working with commercial enterprises and government agencies that are creating something that really matters to people, clients who are trying to make a difference in all of our lives. Our purpose is to help them achieve that. It is the passion that unites our firm as one community.

THE SPACE FOUNDATION

The foremost advocate for all sectors of the space industry and an expert in all aspects of space, the Space Foundation is a global, nonprofit leader in space awareness activities, educational programs that bring space into the classroom and major industry events, including the Space Symposium, all in support of its mission "to advance space-related endeavors to inspire, enable and propel humanity."

The Space Foundation publishes *The Space Report: The Authoritative Guide to Global Space Activity* and provides three indexes that track daily U.S. stock market performance of the space industry. Through its Space CertificationTM and Space Technology Hall of Fame[®] programs, the Space Foundation recognizes space-based technologies and innovations that have been adapted to improve life on Earth.



The Space Foundation was founded in 1983 and is based in Colorado Springs, Colo. Its world headquarters features a public Discovery Center with two main areas – the El Pomar Space Gallery and the Northrop Grumman Science Center featuring Science On a Sphere®. The Space Foundation also conducts research and analysis and government affairs activities from its Washington, D.C., office and has a field office in Houston, Texas.

For more information, visit www.SpaceFoundation.org. Follow us on Facebook, LinkedIn and Twitter, and read about the latest Space Foundation activities in SpaceWatch.

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